

SYSTEM AND PROCESS FOR JOB SCHEDULING TO MINIMIZE CONSTRUCTION COST

ABSTRACT OF THE DISCLOSURE

[0063] Increased efficiency and lower cost job scheduling is provided by a system and method that optimizes for cost instead of makespan, and minimizes fluctuations in resource utilization. A schedule is constructed using a workflow scheduling system that includes a load leveler, a cost minimizer, and a manpower planner. The load leveler minimizes makespan, subject to resource limits, and then lowers the resource limits, repeating the process in order to create a flatter schedule. The cost minimizer generates an initial solution, and then incrementally improves it, using the manpower planner to evaluate the different possible solutions. The manpower planner calculates, for a given schedule, the optimal hire/fire decisions to minimize total cost.